COVID-19 UPDATE

August 11, 2020

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Presentation Overview

Disease Reporting and the County Monitoring List

COVID-19 - By the Numbers

COVID-19 Background Information

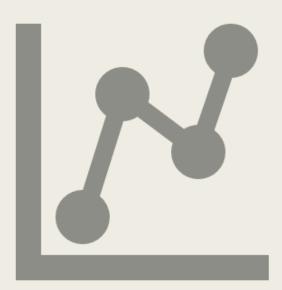
COVID-19 and Children

Long-Term Effects of COVID-19

Questions

Disease Reporting and the County Monitoring List

- As reported by many last week, there were issues with the state's disease reporting system through which local health departments receive lab result notifications. This resulted in undercounting of COVID-19 cases.
 - We continued to receive some lab results from CalREDIE, directly from labs, and via the OptumServe portal.
 - COVID hospitalization and death data were not impacted by this issue.
- As of 8/10/20, the issue with the reporting system has been addressed and is now performing as expected, and the backlog of results (between 250,000 and 300,000) is being delivered to local health departments.
- Due to this issue, the County Monitoring List was "frozen" until the issue could be resolved to ensure that CDPH once again had good, reliable data available.
 - CDPH has not yet determined when they will update the County Monitoring List.
- As a reminder, for purposes of the County Monitoring List, CDPH does not use the lab reporting date to determine case rate; instead, they use the episode date, which is either the date of the onset of symptoms, or the date of specimen collection. This provides a more accurate picture of the epidemic curve.



COVID-19:
BY THE
NUMBERS



California COVID-19 By The Numbers

August 10, 2020

Numbers as of August 9, 2020

CALIFORNIA COVID-19 SPREAD

561,911 (+7,751)

TOTAL CASES

Ages of Confirmed Cases

• 0-17: 53,136

18-49: 339,235

• 50-64: 107,300

• 65+: 61,464

Unknown/Missing: 776

Gender of Confirmed Cases

• Female: 281,543

Male: 274,192

Unknown/Missing: 6,176

10,359 (+66)

Fatalities

Hospitalizations

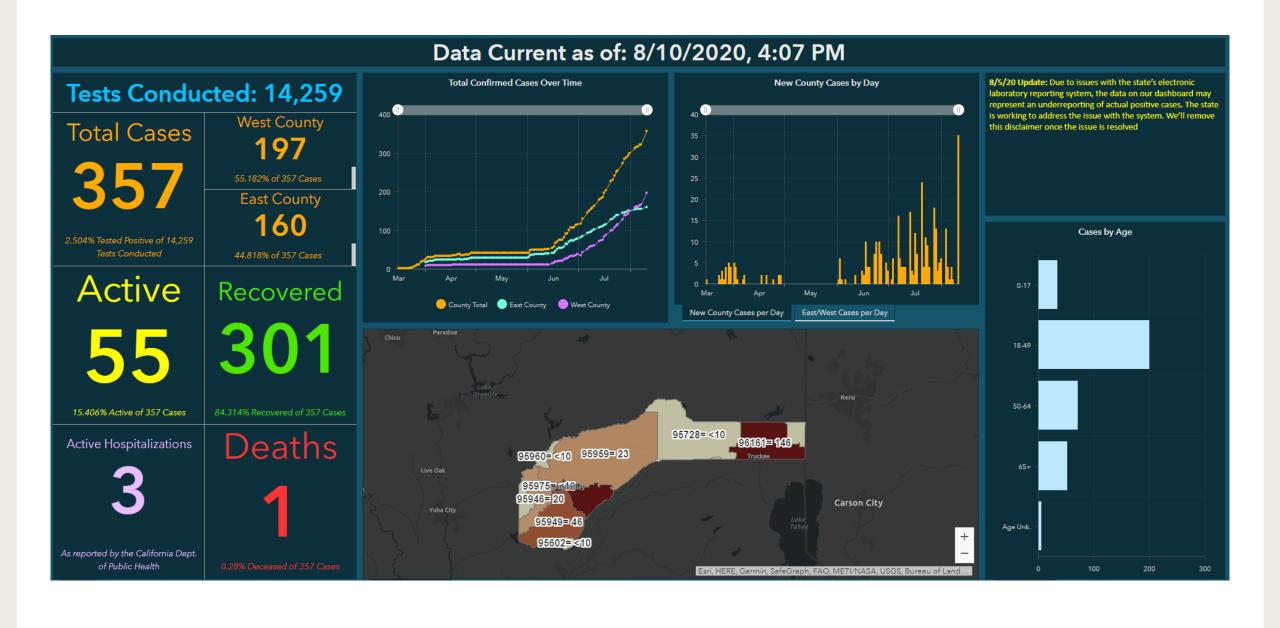
Confirmed COVID-19

5,596/1,727
Hospitalized/in ICU

Suspected COVID-19

1,174/152
Hospitalized/in ICU

hospital data: bit.ly/hospitalsca



COVID-19 Background

Science

- In the ideal world, decisions are based on evidence
- In the current pandemic, we have competing priorities that need to be balanced, with inconclusive and contradictory studies and little certainty, with no good choices
- Be suspicious of anyone who is dogmatic!

Plans

- Plans are useful but planning is indispensable (Gen. Eisenhower)
- It's tough to make predictions, especially about the future (Yogi Berra)
- No plan survives the first contact with the enemy (Napoleon)

Current Situation

- Internationally, almost 19 million cases and >700,000 deaths
- USA: 4.9 million cases, approx.160,000 deaths
- 80% mildly affected, 14% serious, 5% critical, 2% fatal
- Transmission mainly by droplet, also fomites, fecal-oral, airborne
- Incubation period 2-14 days, median 5 days
- How many people a case will infect: 1-3.5

COVID-19 and Children

Can children get COVID-19?

- Yes, but at a rate about half of that for adults
- Children <18 years of age have had 6-9% of cases, but are >20% of the population
- Problem We do not know how many cases are without symptoms and not detected. It may be even 70-80% for children.

Can children get seriously ill?

- Yes. As of July 22, there have been 77 childhood deaths out of 144,000 in the USA, with 800 ICU admissions. In California, the first death recently occurred in a child.
- Children most at risk: < age 1 year. Decreased risk: age 1-10 years. Risk same as adults: >10 years
- 1,000 cases of MIS-C (multi-system inflammatory syndrome) worldwide, a recent 10-year old from El Dorado County now at UC Davis

COVID-19 and Children, continued

Why are children less vulnerable?

- Fewer angiotensin-converting enzyme 2 (ACE2) receptors to bind the virus
- Cross immunity from other "benign" "cold" coronaviruses
- Spillover protection from vaccinations
- Stronger immune system
- Everything is new better equipped to fight off novel infections
- Fewer underlying medical conditions (<20%)
 (cardiac, pulmonary, diabetes, obesity,
 neuromuscular, genetic, immunosuppression)

COVID-19 and Children, continued

Can children infect others?

- Yes
- However, a striking difference less in children <10 years of age
- Unlike flu, children do not drive the pandemic (If you want to get the flu, go to kindergarten)
- A child is more likely to get it from a parent or teacher than give it to them
- In Israel, New Zealand, and France, they had large outbreaks in middle and high school, but not elementary school
- Childcare facilities for essential workers have been open, >33,000 facilities with >720,000 young children, only 1,365 cases with 261 in children

COVID-19 and Children, continued

What affects transmission and how could we limit/stop it?

- Age versus chronic underlying medical conditions a 75-year old has the same risk of severe disease as a 20-year old, but the 75-year old is much more likely to have some chronic underlying medical conditions (>80% versus <20%).
- Rate of community transmission
- Use of non-pharmaceutical interventions (NPI) social distancing, masks, handwashing, no gatherings
- School closure with focus on infection control, testing, contact tracing, and supported isolation and quarantine

Long-Term Sequelae – Systemic, Multiorgan Dysfunction

What Symptoms are involved?

- Pulmonary scarring, reduced lung capacity (recently 2 younger patients with double lung transplants)
- Cardiovascular heart muscle injury, myocarditis, heart attack, heart failure, arrhythmias, venous thromboembolic events (coagulation abnormality), shock, cardiac arrest
- Liver cirrhosis, failure
- Kidney infection, failure, need dialysis and transplant
- Neurological hallucinations, seizures, personality change, encephalitis, flashbacks, memory problems, "foggy brain"
 - In the young, regression to a younger version of self, impaired brain growth

Long-Term Sequelae – Systemic, Multiorgan Dysfunction, continued

Who is at risk?

- Even when symptoms are mild or moderate
- Even after seeming recovery
- Anybody, but especially with pre-existing coronary artery disease, hypertension, diabetes, clotting disorders, advanced age, immunocompromised state, underlying systemic inflammatory conditions
- Five-fold risk of dying with underlying cardiovascular disease

How many, how bad, and how long?

- Prevalent
- Variable
- Debilitating
- Life-long?



Your Actions Make a Difference



QUESTIONS?